

Upper Roanoke River (Roanoke and Botetourt Counties, Cities of Roanoke and Salem, Town of Vinton) TMDL Implementation (Cleanup) Plan Development

Second Residential and Agricultural Working Group Meeting Notes

February 27, 2014, 6:00 – 8:00 p.m.

Virginia Department of Environmental Quality, 3019 Peters Creek Rd., Roanoke, VA

Attendees:

- Michael Beahm - Mountain Castles SWCD
- Meagan Cupka - Blue Ridge Land Conservancy
- Mary Dail, Diana Hackenburg, Charlie Lunsford, Jim Scott – Virginia Department of Environmental Quality (DEQ)
- Stacy Horton - DCR
- Margie Lucas - Mill Mountain Garden Club
- Michael McEvoy - Western VA Water Authority
- Staci Merkt - Mountain Castles SWCD
- Marlon Old - Mountain Castles SWCD
- Nick Tatalovich & Erin Hagan - Louis Berger Group
- Cindy Linkenhoker - Roanoke County

Introductions were made and meeting guidelines were set.

Background: The Roanoke River is impaired for both bacteria and sediment. This clean-up plan will describe the strategies needed for reducing bacteria and sediment in the Roanoke River watershed to meet applicable water quality standards. This plan covers the Roanoke River watershed from Smith Mountain Lake to the confluence of Mason Creek and the Roanoke River, which includes 10 subwatersheds. The TMDL identified the loads of bacteria and sediment that the different subwatersheds could receive and still meet water quality standards. From these loads, reductions were estimated by source or land use such as developed, cropland, pasture/hay, etc. Clean-up plan actions to meet these reductions can include indirect measures like outreach, educational programs and signage and direct measures which are more commonly known as Best Management Practices (BMPs). The Agricultural and Residential working groups will assist in determining the types and extent of BMPs needed in the subwatersheds as well as the partnerships and funding sources needed to implement the identified clean-up strategies. Different clean-up plan strategies were presented to address residential pollutant sources (sewage disposal, pet waste, stormwater) and agricultural sources (livestock exclusion and manure management, pasture, cropland). The total cost estimates presented are those identified strategies needed to meet water quality standards.

Handouts: Agricultural & Residential Working Groups Meeting #2 Handout, Best Management Practices Efficiency and Cost (updated Draft), Best Management Practice Estimates by Subwatershed

Presentation: The Louis Berger Group (LBG) presented project background and BMP estimation approaches as well as examples from a few subwatersheds. The Project Team reiterated the hope that participants will comment tonight and take the meeting handouts home and submit comments at a later date. The information presented represents a “first-cut” at estimates of BMPs needed by subwatershed.

Residential BMPs Discussion

- The Clean-up plan does not directly target nutrients, but it is recognized that some of the BMPs could reduce nutrient loading in the watershed.
- Pet waste station estimates were calculated by taking the number of residential roads and including a station for every 2 miles. In other Clean-up Plans, this is determined by looking at places in communities where the stations would best serve public dog walking areas. On the Roanoke Greenways, there are 8 pet waste stations. Maintenance is a problem with the stations because people steal the bags. Servicing the stations would be a problem if they were located every 2 miles. Should amend analysis to include or target parks and hotels. May also look at trail coverage map and suggest stations on trails.
- Mill Mountain Garden Club's "Scoop the Poop" educational campaign is starting. They are working with the City and Clean Valley Council and applying for money to purchase interpretative signage. They are also seeking pledges from members and community members to commit to picking up their pet's waste. Eventually, they would like to give participants a symbol of their commitment such as a magnet.
- Pet waste composters are a new concept to most people. Group would like more information about the systems and vendors. These are being used in other Implementation Plan projects. Charlie cited the Doggie Dooley sold by Drs. Foster and Smith which scales to different numbers of dogs serviced. Most useful for people with small yards. Cost-share has been used to purchase units or they can be given out to promote interest in the water quality issue.
- "Pearl Homes" could be the next step in bringing people's attention to water quality issues. The Pearl Homes initiative was started in the Lynnhaven watershed and includes a checklist of a wide array of environmentally responsible practices that homeowners can implement. Homeowners apply to become a "Pearl Home" based on the number/quality of practices they implement in their home and on their property. They receive a garden flag to display in their yard. Could something similar be used in conjunction with stormwater utility fee offsets for homeowners? Some ideas for names are "Logperch Homes" or "Roanoke River Star Homes". However, efforts might be more successful if they start small such as the "Scoop the Poop" initiative.
- "No Mow Zone" program is an initiative of Trout Unlimited's Glade Creek Restoration Committee to encourage landowners to keep grassy riparian buffers. There is a public perception problem with wild landscapes being seen as "ugly" and unkempt rather than as habitat, natural, etc.
- On Back Creek, many homes are old, but because of their location, most of their drainfields are just flowing off so they'll never fail. There is a tendency among developers to find the "sand" to fit in a bigger home. Other states require septic systems be built into clay so the water doesn't drain out. Alternative Waste Treatment system cost may be low. Other IPs use \$25,000 as an average.

Agricultural BMPs Discussion

- Mountain Castles SWCD suggested that it is hard for farmers here to qualify for continuous no-till SL-15 here in the mountains. The practice is more common in the eastern part of the state.
- Manure storage dairy and beef in the subwatersheds are not needed. There are no dairies in the Back Creek subwatershed and only one in Tinker Creek which already has a storage area. There are probably a limited number of beef farms that would need manure storage. However, manure storage may include winter feeding lots for calf/cow operations. Those BMPs should be moved around to exclude manure storage to get a more accurate cost estimate.
- Mountain Castles primary BMPs are SL-6, stream exclusions and cover crops. Would suggest referring to the current year's Best Management Practices manual for the full suite of agricultural

practices available to the District and farmers for cost-share. Mountain Castles does not do many FR-1 practices, but may be able to get that information.

- Small Acreage Grazing Systems (SL-6AT) are generally for equine and alternative livestock which statewide is booming. DEQ gets a lot of complaints about equine operations which are chronically overgrazed. Those complaints are sent to VDACS. Those landowners can be hard to reach because they are not plugged into the traditional agricultural community. Botetourt Extension Agent is working now to reach these landowners as it takes a “different approach” to education. Mountain Castles has does very few of those practices with non-traditional farm animals. That is potentially an area for education efforts.
- There is a need to reach out to and educate equine owners
- WP-2A, Streambank Stabilization, can be stand alone, but usually is only done with other practices such as WP-2 (Stream Protection). Would be good to include. Urban riparian buffer analysis should catch some of the opportunity for residential properties that back onto stream areas.

General Discussion

- The strategies needed to meet the sediment TMDL were greater than the strategy needs to meet the bacteria TMDL.
- Erosion & Sediment controls are a concern and will be discussed further in the Government Working Group, including ways to enhance those measures.
- DCR would definitely have options for landowners. They’ve had a lot of interest from residential landowners in recent years needing help with water issues on their properties. Smith Mountain Lake Association runs a landscape buffer program to help with lake erosion problems. New River RC&D has a live-stake planter for trees to help landowners. A bank erosion problem is known by WVWA in Fairway Forest Estates and the estimate for fixing the problem is \$40,000 or more.
- 319(h) funds are out there, but now they are more competitive. It’s also a relatively small pool compared to the restoration cost per watershed.
- For administration, these grants can be a hassle. Partnerships help with getting funding. Community organizations, schools, Districts - anyone can be involved.
- A Residential & Agricultural Working Group representative is needed for the Steering Committee.
- Please provide feedback on these BMP and cost estimates as well as any thoughts on prioritizing clean-up efforts throughout the watershed.
- The Government Working Group will meet on February 28. After gathering feedback from the working group meetings, the Steering Committee will meet to review the working group comments. DEQ and Louis Berger will then finalize the draft clean-up plan and present it to the community in a public meeting. Public comment on the draft plan will be accepted and then the plan will be finalized.